

WHITE (GEO. A.)

*White (Geo. A.)  
presented by the author*

A PRACTICAL MONOGRAPH  
ON THE  
TREATMENT  
OF  
LOCAL COMPLAINTS  
OF  
THE FEET,  
BY  
GEO. A. WHITE,  
SURGEON CHIROPODIST.

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ILLUSTRATED.  
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WASHINGTON:  
J. L. PEARSON, PRINTER.  
1869.







Exostosis

Ulcerated Bunion

*Bot*  
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## **PREFACE.**

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**S**UCCESS in the engagements of life, and a proper appreciation and enjoyment of its comforts and pleasures, depend to a very great extent upon the condition of the feet; and on account of their constant exposure to the injurious effects of climatic changes, ill-fitting shoes, &c., and considering the great amount of duty imposed upon them, it is but reasonable to suppose that they would need careful attention, in order that they should be kept in a comfortable and useful condition.

The civilian, who walks upon the hard pavements of the city, or the soldier, who is often obliged to march long distances in the open country, whose feet are not properly cared for, is liable to be partly if not wholly unfitted for the duties of his position; and in this climate of manifold atmospheric changes, the feet need more frequent attention than where the temperature is more equable.

Until within the last few years the profession of the Chiropodist has been comparatively unknown to the majority of persons, but thanks to the progress of the age, it is now getting to be generally and favorably known, and patronized accordingly.



In some armies, the staff of medical men is not considered complete unless the Chiropodist be included, and he having his assistants in each division or corps, no doubt contributes largely towards accelerating the movements of the army, and in the event of an engagement, to the success of its forces. Among the foot-soldiers an acquisition of that kind would no doubt conduce to the efficiency of any army; besides, cavalrymen, from the pressure of the stirrup, or of ill-fitting boots, often suffer from disorders of the feet.

Some armies have the Veterinary Surgeon, who gives special attention to the feet of the horse—which is no doubt a matter of great importance—but make no special provision as to the care of the soldiers' feet, though it is quite possible that a practical Chiropodist, with a proper corps of assistants, by taking charge of the regulating of the shoe department and the care of the feet of the soldiers—as far as pertained to his profession—would contribute to the comfort, efficiency, and success of an army an hundred-fold more than the expense entailed by an addition of that kind, allowing liberal compensation to competent persons.

It is to be hoped that this specialty will soon be practically introduced in our medical colleges, as it is a calling likely to increase in favor as it becomes more generally known, and would no doubt prove to be an honorable as well as a lucrative profession to any honest person who graduated at a medical college as a Chiropodist, and persons are apt to have more confidence if their ailments are scientifically explained before being practically treated.

Knowing the importance of proper attention to the



feet and the danger of submitting them to the treatment of inexperienced or charlatanry disposed persons, I have compiled these few pages in order to give sufficient of the theory of local complaints of the feet that persons may better judge as to their proper treatment, and thereby protect themselves against the malpractice of empirics, trusting that at some future time I may be able to offer more extended views upon a subject of such great importance.



## *The Human Foot.*



THE HUMAN FOOT, in its natural state, being made up of a multiplicity of symmetrical parts uniting in a consistent whole, forms one of the most wonderful and beautiful examples of perfect mechanism connected with the human frame. It consists, 1st, of a framework of twelve bones, besides those of the toes. 2d, of ligaments or fibrous inelastic bands, which unite the bones at the articulations of the joints. 3d, of layers of muscles arranged next the bones, which produce motion by their contraction and relaxation, giving that charming ease and elasticity of movement and enabling the foot to so continuously bear the weight of the body. 4th, of nerves which extend from the brain and spinal cord to the muscles and skin, through which the mind derives a knowledge of substances in contact with the foot, and through which the will operates upon the muscles. 5th, of blood-vessels, through which the blood is conveyed to the different parts for the purpose of nourishing and promoting their growth. 6th, the synovial membrane and bursa mucosæ or capsules of the joints, from which exudes a clear viscous fluid, which lubricates the

joints and enables them to retain their normal state. 7th, cellular and fatty tissue which cushions and gives that perfect symmetry which is considered so expressive a mark of beauty. 8th, the skin, which is conformed to, covers, and protects the outer part, and which contains nerves, veins, and arteries, in direct communication with all parts of the person.



### *Contraction and Expansion.*

THERE are times when the moisture and caloric contained in the atmosphere have a very peculiar effect upon the human frame. "I mean those qualities of the air and climate which are supposed to work insensibly on the temper by altering the tone and habit of the body."

The human foot seems to be unavoidably exposed to the consequences of ill-fitting shoes, the ill fit of which is often attributable to the variations in the size of the foot or of the shoe, occasioned by a climatic change, which is liable to increase the size of the foot and at the same time cause a decrease in the size of the shoe. It is a noticeable fact that though sometimes the boot may be placed upon the foot with perfect ease, at other times we may have great difficulty in getting

the same boot upon the same foot. So that evidently it is not always the fault of the manufacturer, but is sometimes the result of contraction and expansion. Upon proximity to the fire or direct rays of the sun, the caloric causes the foot to expand, and at the same time it may absorb the moisture from the material of which the shoe is composed, and thereby cause the shoe to contract. As a remedy large shoes may be suggested, which no doubt would be good advice as far as the troubles heretofore mentioned are concerned, but they would be liable to give rise to others equally objectionable, to say nothing of their disproportionate appearance. A large shoe may do for walking upon the soft ground, but is not suited to the hard pavements of the city. For city wear a snug-fitting shoe is much the best; it admits of a graceful and quick movement, and is more conducive to comfort and economy of time than a large one.

But the foot, having such a great amount of duty imposed upon it, and generally being most exposed to the ill effects of atmospheric changes, seems to need careful attention even if well-fitting shoes be worn; for if neglected, local complaints are liable to arise which may unfit a person for the duties and pleasures of the day, if they do not result in anything more serious.

A shoe that laces or ties upon the instep is best; it can be tightened or loosened as occasion re-

quires. The heel should be broad and low; the sole should be thick, in order to protect the foot from damp and hot pavements; long, that the ends of the toes should be free from pressure, and it should be conformed to the shape of the foot. Straight and narrow soles are always dangerous, and never beautiful.

The shoe should be proportioned to the foot—neither too large nor too small. And the foot should be in proportion to the person, deformity being expressed in too small a foot, considered as to the rest of the figure, as much as if it were too large.



### *The Skin.*

THE SKIN is a complex structure, which covers the entire surface of the body. It is composed of three layers. The outer layer is called the scarf skin, the cuticle, or epidermis. It forms a covering and protection for the deeper seated and sensitive parts. The middle layer is called the reticulum, and contains the pigment to which the variation in the tint of the different skins is due. The other and deepest layer is called the true skin, the *cutis vera*, or the *corium*. It is a flexible, extensible membrane. The upper portion of it is fine and firm, but it grows coarser



below. Connected with its under surface is a fibrous web, the little spaces of which are filled with an accumulation of fat, which imparts that softness and smoothness to the skin which is so perceptible in youth, and to the loss of which old age attributes its wrinkles. Upon its upper surface is the sensitive part, which is composed of arteries, veins, and nerves, doubled into loops, which form little elevations called papillæ, in which the sense of touch is located. Besides, there are many little glands, which perform their several offices. Through some the perspiration exudes, while others secrete an oil which lubricates, and in that way helps to preserve the integument. Then there are other small glands, from which flows the albuminous substance, of which the cuticle or epidermis is mostly made up, and the increased nutrition, or flow of which, caused by friction and pressure, is what forms the corn, the cuticle increasing in bulk, corresponding with the increased nutrition, or flow from those glands, when the moisture quickly evaporating, leaves a hardened uneven mass, which presses upon the sensitive papillæ, and they partly extending into the corn, are what make it so difficult to remove. Even after it has been removed, and the irritation discontinued, those little glands being so distended, the extra flow from them will but gradually decrease, and the corn still continues to form. But, with regular attention on the part of

the Chiropodist, each succeeding formation will be smaller in size, and, finally, those little glands having assumed their proper proportions and functions, the part becomes smooth and natural again.

The interior as well as the exterior of the body is covered with a skin which, from its always being moist, is called a *mucous membrane*, at the various orifices—the nostrils, mouth, &c. The outer and inner skins are united, and form one continuous integument, from which continuity springs an important medical law, which is, that a disease of the outer skin may spread to the mucous membrane, or vice versa. A medicine applied to one generally affects the other also, which accounts for the many serious accidents resulting from the application of nostrums advertised as being a cure for corns, which prove to be so deleterious in their effect. The structure of the mucous membrane is similar to that of the outer skin, the slight difference between them being occasioned by the constant moisture of the one, and the continuous exposure of the other to the light and air.

If part of the outer skin be obliged to occupy an internal position it soon assumes the character of the mucous membrane; and if the mucous membrane be turned, and continued outward, exposed to the light and air, it gradually, but fully, assumes the appearance and functions of the outer skin.



Vascular Eruptions



Callosities & Corns

### *Theory of Corns.*

WHERE there is excessive pressure, or friction, against any part of the person, the cuticle, or outer skin, forms layer upon layer, in order to protect the injured part. If the foot be the part affected, the irritating cause is generally continued till what was in the first place designed as a protection becomes painful of itself. For at those particular parts where the external pressure is most severe, the cuticle forms in little cone-shaped unevennesses, with the points pressing against the *cutis vera*, or true skin, which intervenes between the corn and the flesh, and which is very sensitive, the nerves in the true skin being so close together that it is impossible to pass the point of a fine needle through it without wounding a nerve and thereby causing extreme pain. Instances are on record of persons losing their lives by resorting to that most dangerous method of endeavoring to extirpate their corns with knives or razor. And as those little cones extend into the foot quite a distance, it is impossible to cut them out without cutting the nerves and arteries of the skin, which is apt to result in very serious consequences. Specialities are now being appreciated, and where the Chiropodist is located people do not allow themselves to suffer, but periodically submit their feet to the inspection of his more experienced judgment and skill. His

method is to extract these little cones, for which he has instruments adapted to his profession, that enable him to entirely eradicate the excrescence, without causing pain, or drawing blood, affording the patient immediate relief, and, unless in very extreme cases, if the predisposing and exciting cause be avoided, often effects a perfect cure.

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### *Corns and Bunions.*

**C**ORNS AND BUNIONS are produced by friction and pressure. They come from hypertrophy of the papillæ, which exist everywhere in the true skin, and consist of the thickened and hardened integument which surrounds and covers them. The bunion differs from the corn merely in point of size and location, forming either over the first joint of the great toe or the corresponding joint of the little toe, while the corn may come upon any part of the foot, the bunion sometimes having several corns in it. The corn, as well as the bunion, usually forms upon a joint pressed out of place, which creates an angle, where the pressure and friction being concentrated, causes the thickening and hardening of the integument which covers it. Upon the parts of the corn or bunion where the pressure is most severe some-



times a cluster of small cones is formed, the points of which extend inwards beyond the bulk of the excrescence, and in shaving the part, though the bulk of it may be removed, still those little points will be found to remain, which gives rise to the theory that there are roots to a corn, it being impossible to remove them in that manner without seriously wounding the foot.

But since special attention has been given to the treatment of diseases of the feet, such accidents seldom occur. An occasional visit to the Chiropodist being far preferable to the risk of an injury to so important a part.

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### *SOFT CORNS.*

**S**OFT CORNS always come between the toes; they are kept soft by the constant moisture occasioned by the exhalations, and are generally caused by lateral pressure, as that occasioned by a narrow-soled shoe, which brings the joints so close together that the circulation is impeded, and the integument covering the part becomes indurated, and finally so bulky as to be quite painful; usually they are not very deep seated, though a corn coming between the small toe and the adjoining one sometimes extends back between the meta-

tarsal bones, when, if neglected, an abscess of rather a chronic character forms upon the upper part of the foot, which is slow in suppurating, necessitating perfect quiet and careful attention, as the foot, if not the person, might be endangered.



### ***BUNIONS.***

A BUNION is the result of a disarrangement of the articulation of the first joint of the great or little toes. It is generally occasioned by a short shoe with a narrow sole, which presses the toes both laterally and longitudinally, thereby disarranging the articulation of the joint by forcing it outwards, when the pressure and friction, being concentrated upon the prominent part, causes a thickening and hardening of the integument which covers it. Upon the parts of the joint where the pressure is most severe small corns are formed, the points of which extend inwards and press upon the sensitive skin, thereby causing a great amount of suffering.

The thickened and hardened integument containing those little corns and points is what constitutes the ordinary bunion. But when the irritation is very great, both in force and continuance, the bursa mucosæ is liable to become disarranged,

when the secreting of the synovial fluid is checked or turned in an improper direction, sometimes making its way to the surface, when a clear watery viscid substance may be noticed exuding from a small opening in the skin over the articulation of the joint; this condition of the bunion, if neglected or improperly treated, is liable to result in permanent immobility of the joint. Another condition of the complaint is the ulcerated bunion, when a deep-seated abscess forms, suppuration takes place, and the pus not finding ready means of escape burrows into the joint, which sometimes results in *caries* or ulceration of the bone.

Some persons, from the delicacy of their organization, seem to be predisposed to bunions or other complaints to which the feet are liable, and upon the slightest premonitory symptom deem it necessary to immediately consult the Chiropodist, as by taking the complaint in its incipency they obviate any serious difficulty, which is no doubt the better way, prevention being easier than cure.



### *Vascular Excrescence.*

THIS most troublesome excrescence is liable to form upon any part of the foot exposed to excessive pressure, as that occasioned by a peg in

the shoe, a rough place in the stocking, or similar unevennesses. If neglected it becomes quite deep seated; and when irritation is continued, as by ordinary use of the foot, the papillæ of the true skin gradually form into softened tufts of fastigiated fibres of unequal lengths, which, upon attempt at extirpation with the knife, bleed quite profusely. In walking it causes a severe burning sensation in the foot, generally more severe in lifting the foot than pressing upon it.

The vascular excrecence is said to be of a cancerous diathesis; but after many years' experience in treating them, I have never failed to effect a perfect cure in any case I have had in charge, and if assisted by quiet on the part of the patient, the cure is effected in a very short time. Consequently I am led to believe that however troublesome they may be, there is nothing particularly malignant in their character.



### *The Ingrowing Toe-Nail.*

**I**N order to guard against this most troublesome complaint, the corners of the nail should be allowed to extend over the toe so as to keep the flesh in place. The proper manner is to cut the nails square or slightly concave in the centre, leav-

Ingrowing Toe Nail

Vascular Corn

Festered Corn







ing the corners rather long, as, when they are cut too short, the pressure which is brought to bear upon the under part of the toe in walking forces the flesh up and over the end of the nail, till, finally, there is no way for it to grow except into the flesh. It is generally at the sides or corners where the most trouble is found; they pierce into the toe, when the sufferer cuts them for relief, but in doing so is pretty sure to make more uneven places, sometimes repeating the experiment so often that the edge of the nail, as far as comfort and appearance is concerned, might be compared to a saw, each succeeding operation generally leaving an additional notch which pierces into the flesh, till, finally, the condition of the toe is such that the shoe cannot be worn with any degree of comfort. It is merely by chance that persons can afford themselves relief by operating upon their own toes, not being skilled in operations of the kind; and, if ever so skillful, it is almost impossible to get to one's own feet in a manner that admits of a proper operation. There are many applications recommended for ingrowing toe-nails, such as nitrate of silver, burnt alum, hot tallow, etc., though it is hardly worth while mentioning them or their modes of application, as they are now seldom used by the profession. I find the best method is to remove the offending portion of the nail, which can usually be done with comparative ease to the patient. I take firm hold of the

ball of the toe and press laterally upon the under part, which brings the exuberant flesh away from the nail. I then take a small chisel-shaped instrument, and, commencing at the front of the nail, carefully dissect a narrow piece—gradually directing the edge of the instrument outwards—and finally separating the piece beyond and so as to remove all the ragged part. Immediately after, I apply an astringent to the part, which enables the flesh to bear the pressure of the evened nail without inconvenience to the patient.

The ingrowing of the toe-nail, though generally caused by cutting it in an improper manner or tearing it into the quick, can sometimes be attributed to other causes. A narrow shoe, which compresses the toes laterally, inflames the part, when a flap is formed which is pressed against the side of the nail to that extent that ulceration takes place. Sometimes a predominance of acid in the perspiration will eat notches in the side of the nail, the unevenness of which soon causes a great amount of trouble.

Besides the ingrowing nail, there is what is termed the club nail, which is sometimes caused by onycha, a disease which attacks the matrix of the nail, destroying the functions of the secreting vessels of the root, when the nail grows in thickness only; though the greater proportion of the club nails are occasioned by bruising the part, as by the fall of a heavy weight upon the toe, or the

continuous pressure of a short shoe. Sometimes the growth from the root is not entirely checked by the injury, although the growth in thickness may be induced. The nail then presents a peculiar appearance, sometimes being turned aside so as to overlap the adjoining toe, when it is generally of a spiral shape, resembling the horn of the *ovis montana*.

The experienced practitioner can generally remove the club nail without pain to the patient—which admits of the shoe being worn immediately.

### CHILBLAINS.

A CHILBLAIN is occasioned by contraction of the part caused by exposure to extreme cold, followed by a sudden change to a considerably warmer temperature, thereby bringing on congestion, which weakens and sometimes ruptures the blood vessels of the true skin, diminishing their vital force, and rendering the part more susceptible to a similar effect from a much slighter cause. Consequently care should be taken to keep up as proper a temperature as possible.

If necessary to leave a comfortable place for one which is much colder, it is very important that over-shoes should be worn until arriving at a proper temperature. The over-shoe should be an easy fit; it should admit of ventilation, and

at the same time be impervious to water. Cloth uppers are preferable to rubber, as they are porous and the foot keeps dry, while rubber, not being porous, does not admit of the exhalations of the foot escaping, and the part is kept damp from its own moisture, which, on account of the chemical action of the exhalations is quite objectionable. Chilblains are generally of a dark red, purple, or blueish color, and are attended with a most intense burning and itching, which at times are almost intolerable; if neglected gangrene sometimes sets in, and the part sloughs off, which is a rather critical stage of the complaint.

After having used several different kinds of applications, some of which I believe to be excellent in most cases, I still find that there is no specific remedy applicable to all stages of the complaint.

The safest method is to place the case in care of the experienced practitioner as near its incipency as possible.

### *EXOSTOSIS.*

A PROTUBERANCE is sometimes met with under the nail of the great toe, which proves to be a source of very great annoyance. As it increases in size it forces the nail to give way, of which it seems to absorb the growth, the nail decreasing

in thickness as the tumor increases in prominence. The cuticle covering the excrescence is dry and hard, but quite thin, showing a congested condition of the blood vessels of the true skin. The inside of the tumor is formed of bone encased in a substance similar to the periosteum, though more of a cartilaginous than a fibrous texture. It is sometimes the result of a sudden bruise, though generally occasioned by a short shoe, the continuous pressure of which increases the morbid growth and in time precludes the wearing of a proper fitting shoe. As prompt a removal of the excrescence as the condition of the patient will admit of is the proper remedy.



### *The Management of the Finger-Nails.*

THE NAILS OF THE FINGERS, when well formed, constitute an important feature of personal attraction. They contribute greatly to the symmetry of the hand, and their care and culture are well worth being made a study.

The nails are mere modifications of the scarf skin. The scales or plates of which they are composed being more closely packed, render them hard, and give them the appearance of horn. They are elastic, flexible, and semitransparent.

The root of the nail lies embedded to the extent of about the twelfth part of an inch in a fold of the sensitive skin.

The nail as well as the scarf skin receives its nutrition direct from the sensitive skin, but is not continuous with the scarf skin, which overlaps and grows beyond the root of the nail, sometimes covering the greater part of the lunula, which is a semicircular whitish portion, containing fewer blood-vessels, and therefore less blood; from its half-moon shape it is technically termed lunula. The nail is constantly increasing in length, owing to the formation of new cells at the root, which push it forwards, while the increase in its thickness is due to the secretion of new cells from the sensitive layer beneath, so that the farther the nail grows from the root the thicker it becomes. In disease the nutrition of the nail is diminished, and the portion growing during disease is thinner than that growing in health, which creates a temporary unevenness in the nail. The culture of the nails, which, when perfect, constitute so great a beauty, is of much importance, but the tendency is to injure them by too much attention. The scissors or knife should never be used except to pare the free edges when they have become ragged or too long, and the folds of the scarf skin which overlap the roots should not as a rule be touched, unless they be frayed, when the torn edges should be removed by taking firm hold of



them with the fingers or a pair of tweezers, and giving a sudden pull towards the end of the finger, which, if done carefully, will be found to remove them more thoroughly than snipping with the scissors; if the part be sore afterwards apply glycerine or cold cream, and it will soon be well and smooth. The upper portion of the nail should on no account be touched with the knife, scissors, glass, or any sharp instrument, as the scraping of the upper surface tends to increase the thickness of the nail, which thickening continues as a rule, and the part is permanently disfigured. The use of the nail brush is the best method of keeping them clean, as it does not impair their smooth and polished surfaces.

Too frequent use of soap and water has a tendency to produce inflammation, which creates a dryness and causes the skin to fray at the edges of the nail. The alkali contained in all soaps dissolves the albumen, of which the scarf skin is mostly made up, and the true skin, being deprived of its protection, becomes sensitive accordingly. A demulcent wash of bran and water is very beneficial when the skin is inflamed or when the texture of it is naturally thin and delicate. If necessary to use soap, the safest is that which contains the largest proportion of glycerine. But the bran wash is generally effectual in cleansing the skin, rendering it soft and pliant.

The nails should be of an oval shape, corres-



ponding with the end of the perfect-formed finger; they should not be allowed to grow too long, it being difficult to keep them clean; nor should they be cut too close, as then the flesh is pressed up, and the end of the finger assumes a pudgy appearance, which detracts very much from its symmetry.







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CORNS, &c.,

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**DR. WHITE,**  
**SURGEON CHIROPODIST.**

*No. 535 Fifteenth St., opposite U. S. Treasury,*

(Established in Washington, 1861.)

He successfully treats Corns, Bunions, Chilblains, Club and Ingrowing Nails, and other Diseases of the Feet, without pain or inconvenience to the patient. The shoe can be worn with ease immediately after the operation.

Refers to the many eminent Physicians, Surgeons, and thousands of other responsible persons, who patronize his establishment.

**Hours from 8 A. M. to 6 P. M.**

Owing to press of business at office, Dr. White is unable to visit patients at their residences, except between six and eight p. m.

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GEO. A. WHITE,

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